A Turnkey Solution for Multi-Screen Presentations

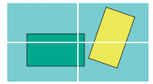
The optional Panasonic Multi-Window Processor (ET-MWP100G) makes it possible to efficiently combine multiple displays and projectors into a single video wall or multi-screen system. Control Software for Multi-Window Processor allows you to create and save display patterns and to control the device over the network. Create spectacular visual presentations for video walls, multi-screen network systems, and digital signage solutions in diverse applications such as in TV studios and for live stage performances.

For more information on the ET-MWP100G, please visit: http://panasonic.net/prodisplays/products/et-mwp100g/

Output Pattern Example

Four Displays

Display Layout



Product Specification (Design and specification are subject to change without notice)

Model No.	TH-55LFV70	TH-55LFV60	TH-55LFV6	TH-47LFV5
DISPLAY				
Screen Size (Diagonal)	55-inch (1387 mm)			47-inch (1192 mm)
Aspect Ratio	16:9			
Panel Type/Backlight	IPS / Direct-LED			
Number of Pixels (H x V)	1920 x 1080 pixels			
Brightness	700 cd/m²		500 cd/m²	
Contrast Ratio	1200 : 1	1400 : 1		
Dynamic Contrast Ratio	500000 : 1			
Response Time	12 ms (G to G)			
Viewing Angle (Horizontal/Vertical)	178 °/178 ° (CR ≧ 10)			
Panel Surface Treatment	Anti-Glare (Haze 44 %)	Anti-Reflection	Anti-Glare (Haze 10 %)	
CONNECTION TERMINAL				
VIDEO IN	BNC x 1 (Shared with COMPONENT Y)			
AUDIO IN	Pin Jack (L/R) x 1 Set (Shared with COMPONENT IN)	Stereo Mini-Jack (M3) x 1 (Shared with COMPONENT/RGB IN)		Pin Jack (L/R) x 1 Set (Shared with COMPONENT IN)
HDMI IN	HDMI Type A Connector x 1	HDMI Type A Connector x 2		HDMI Type A Connector x 1
COMPONENT IN	BNC x 1 Set (Shared with VIDEO IN)	–		BNC x 1 Set (Shared with VIDEO IN)
AUDIO IN	Pin Jack (L/R) x 1 Set (Shared with VIDEO IN)	–		Pin Jack (L/R) x 1 Set (Shared with VIDEO IN)
COMPONENT/RGB IN	–	BNC x 1 (Shared with VIDEO IN)		–
AUDIO IN	–	Stereo Mini-Jack (M3) x 1 (Shared with VIDEO IN)		–
DVI-D IN	DVI-D 24-pin x 2	DVI-D 24-pin x 1		
AUDIO IN	Stereo Mini-Jack (M3) x 1 (Shared with PC IN)			
DVI-D/DVI-I OUT	–	DVI-D 24-pin x 1		DVI-I 29-pin x 1
DisplayPort IN	DisplayPort x 1 (DP1.1)*1	–		
PC IN	Mini D-sub 15-pin x 1 (Female)			
AUDIO IN	Stereo Mini-Jack (M3) x 1 (Shared with DVI-D IN)			
USB	USB Type A Connector (DC 5 V/0.5 A) x 1 (Memory Viewer Only, USB 3.0 Not Supported)	USB Type A Connector (DC 5 V/1 A) x 1 (USB 3.0 Not Supported)		–
AUDIO OUT	Pin Jack (L/R) x 1 Set	Stereo Mini-Jack (M3) x 1		Pin Jack (L/R) x 1 Set
SERIAL	D-sub 9-pin x 1 (Input) / D-sub 9-pin x 1 (Output), RS-232C Compatible			
DIGITAL LINK IN/OUT	RJ45 x 1 (Input) / RJ45 x 1 (Output) (Shared with LAN)	–		
LAN	RJ45 x 1 (100BASE-TX, Compatible with PJLink, Shared with DIGITAL LINK IN)	RJ45 x 1 (10BASE-T/100BASE-TX, Compatible with PJLink)		RJ45 x 1 (Web Browser Control Only)
IR IN/OUT	Stereo Mini-Jack (M3) x 1 (Input) / Stereo Mini-Jack (M3) x 1 (Output)			
SPEAKER				
Speaker Out	8 Ω, 20 W (10 W + 10 W) (10 % THD)			
ELECTRICAL				
Power Requirements	110–127 V AC, 50 Hz/60 Hz / 220–240 V AC, 50/60 Hz			
Power Consumption	330 W	300 W (U) / 290 W (W)	220 W (U) / 210 W (W)	160 W
On Mode Average Power Consumption*2	168 W	142 W	108 W	65 W
Standby Condition	Approx. 0.5 W			
MECHANICAL				
Dimensions (W x H x D)	1213 x 684 x 95 mm (47.8˝ x 26.9˝ x 3.7˝)			1045 x 590 x 109 mm (41.2˝ x 23.3˝ x 4.3˝)
Bezel Width	2.25 mm (0.088˝) [Left/Top], 1.25 mm (0.049˝) [Right/Bottom]			3.2 mm (0.12˝) [Left/Top], 1.7 mm (0.07˝) [Right/Bottom]
Weight	Approx. 30.0 kg (66.1 lbs)			Approx. 25.0 kg (55.1 lbs)
Wall-Hanging Pitch	VESA Compliant 400 x 400 mm (15.8˝ x 15.8˝)			
Installation*3	Orientation: Landscape/Portrait, Angle: Vertical Only			
ENVIRONMENTAL				
Operating Environment	0 °C to 40 °C (32 °F to 104 °F)*4	0 °C to 40 °C (32 °F to 104 °F)*5 / 0 °C to 35 °C (32 °F to 95 °F)*6		0 °C to 40 °C (32 °F to 104 °F)*4
	10 % to 90 % (Non-Condensation)			

*1 Compatible with HDCP. Dual Mode only. *2 Based on IEC 62087 Ed2 measurement method. *3 Please consult your dealer if installation conditions differ to those specified. *4 For up to 2000 m (6562 ft) altitude. *5 For up to 1400 m (4593 ft) altitude. *6 For between 1400 m (4593 ft) and 2800 m (9186 ft) altitude.

PASS Website – **panasonic.net/prodisplays/pass**
Register your display to activate the upgrade kit and get what you need.

Panasonic®

For more information about Panasonic professional displays, please visit:
Global Website – **panasonic.net/prodisplays**
YouTube – **www.youtube.com/PanasonicProDisplay**

All information included here is valid as of October 2015.

CT15-G02PF-LFV Printed in Japan.

Panasonic
BUSINESS

LFV Series

Ultra Narrow Bezel LCD Displays
Super Narrow Bezel LCD Displays

Be a Leader. Get the Edge.

Ultra Narrow Bezel LCD Displays
55-inch TH-**55LFV70**
55-inch TH-**55LFV60**
55-inch TH-**55LFV6**

Super Narrow Bezel LCD Displays
47-inch TH-**47LFV5**

LCD Displays for Multi-Screen Configuration

LFV Series

LFV70 Series combines the elegance of ultra-thin bezels with a class-leading feature set for 24/7 reliability in video-wall signage and control-room applications.

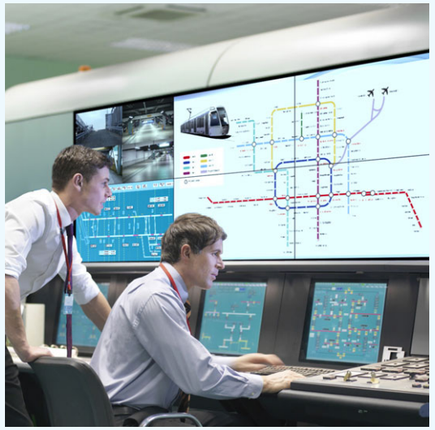
TH-**55LFV70**

Anti-Glare

700 cd/m²

Ultra-thin bezels reduce bezel-to-bezel distance in video wall configuration to a mere 3.5 mm. Even when viewed up close, each panel joins almost seamlessly for truly spectacular large-format images.

LED · In Plane Switching · 24/7 Operation · Pre Calibration · DIGITAL LINK · Ultra Narrow · 3.5 mm · Portrait



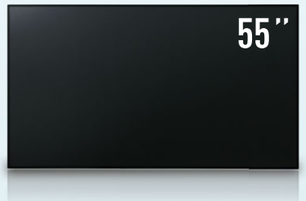
The new LFV60/6 Series serves up the most dramatic image quality in the business with versatile dependability for video-wall signage installations.

TH-**55LFV60**

Anti-Reflection

NEW

700 cd/m²

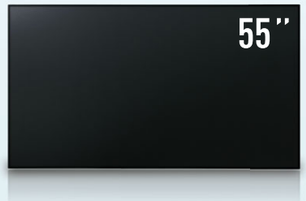


TH-**55LFV6**

Anti-Glare

NEW

500 cd/m²



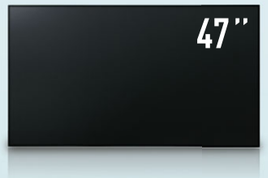
LED · In Plane Switching · 24/7 Operation · Pre Calibration · Ultra Narrow · 3.5 mm · Portrait

The stylish 47-inch LFV5 Series adds a potent set of features to ensure brilliantly clear and vivid picture quality and superb flexibility in a wide range of situations.

TH-**47LFV5**

Anti-Glare

500 cd/m²



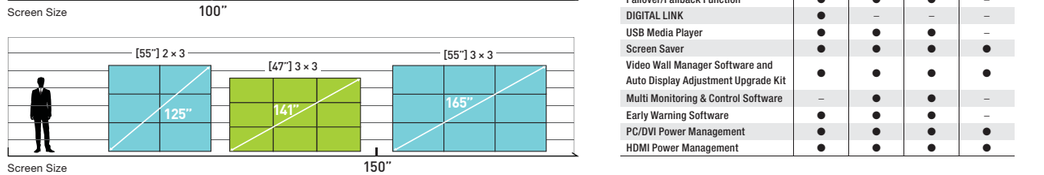
LED · In Plane Switching · 24/7 Operation · Pre Calibration · Super Narrow · 4.9 mm · Portrait

Panasonic LFV Series displays perform brilliantly in a wide variety of applications with features and flexibility that save you time and money.

Feature Comparison and Target Usage

Application	Brightness (cd/m²) 300 400 500 600 700 800	Contrast: Local Dimming Low–High	Color Viewing Angle: IPS Panel Low–High	Visibility: AG/AR Anti-Glare (AG) Anti-Reflection (AR)	System Flexibility: Video Wall Manager	Failover/ Failback	USB Sync Play
TH-55LFV70	● ● ● ● ● ●	●	●	●	●	●	●
TH-55LFV60	● ● ● ● ● ●	●	●	●	●	●	●
TH-55LFV6	● ● ● ● ● ●	●	●	●	●	●	●
TH-47LFV5	● ● ● ● ● ●	●	●	●	●		
Retail Signage	◆ ◆ ◆ ◆ ◆ ◆	◆ ◆	◆ ◆	◆ ◆	●		●
Rental/Staging	◆ ◆ ◆ ◆ ◆ ◆	◆ ◆	◆ ◆	◆ ◆		●	●
Command Control	◆ ◆ ◆ ◆ ◆ ◆	◆ ◆	◆ ◆	◆ ◆	●	●	
Broadcast	◆ ◆ ◆ ◆ ◆ ◆	◆ ◆	◆ ◆	◆ ◆		●	
Enterprise/Education	◆ ◆ ◆ ◆ ◆ ◆	◆ ◆	◆ ◆	◆ ◆	●		

The Panasonic Solution to Video-Wall Installation



* Excluding LFV5 Series.

Result: Fewer Man-Hours and Money Saved

Note: Optional accessories are required for installation and calibration.

Choose the Size to Suit Your Location

Select the screen size that best suits your space, installation requirements, and budget.

Feature Comparison Table

	55LFV70	55LFV60	55LFV6	47LFV5
Panel Brightness (cd/m²)	700	700	500	500
Bezel-to-Bezel (mm)	3.5	3.5	3.5	4.9
Panel Surface Treatment	AG	AR	AG	AG
24/7 Operation	24 hr	24 hr	24 hr	24 hr
Portrait	●	●	●	●
Multi Screen	10 x 10	10 x 10	10 x 10	5 x 5
Failover/Failback Function	●	●	●	–
DIGITAL LINK	●	–	–	–
USB Media Player	●	●	●	–
Screen Saver	●	●	●	●
Video Wall Manager Software and Auto Display Adjustment Upgrade Kit	●	●	●	●
Multi Monitoring & Control Software	–	●	●	–
Early Warning Software	●	●	●	–
PC/DVI Power Management	●	●	●	●
HDMI Power Management	●	●	●	●

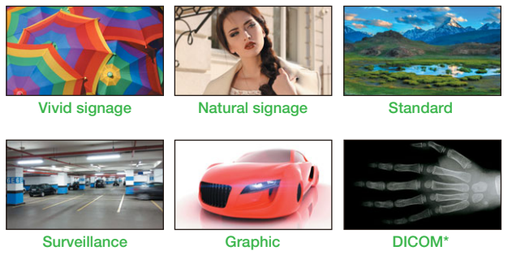
LFV60 / LFV6

Feature Highlights

A Flexible and Reliable Multi-Screen Solution

Optimized Image Modes NEW

Conventional display panels usually include basic display mode presets such as Standard and Dynamic. The LFV60/6 Series, however, features an extensive display menu that allows you to very easily choose from a wide selection of display modes to suit different content, video sources, and lighting environments to achieve optimal results.



* DICOM simulation only. Do not use for actual medical examinations or diagnosis.

Multi-Screen Video Synchronization NEW

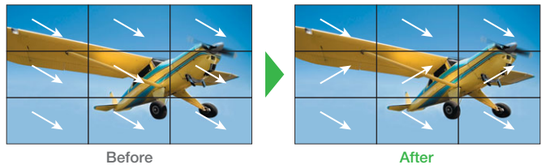
LFV60/6 Series incorporates a new video playback synchronization function for vertically adjacent displays in multi-screen configuration. It assures more natural video playback compared to displays with unsynchronized timing.

Frame control

Adjusts timing of images to reproduce enlarged video more naturally.

Reverse scan

Reverses direction of image scanning to smoothly play enlarged video on multiple screens.



Note: Graphic is simulated. Arrows show scanning direction during video playback.

High-Performance Imaging Engine NEW

Color and image quality can be fine-tuned and customized to assure seamless uniformity across all displays in multi-screen configuration.

Color matching function

Corrects any unevenness in color between multiple screens. R (red), G (green), and B (blue) along with intermediate colors (cyan, magenta, and yellow) are corrected individually on each display.

Color enhancement

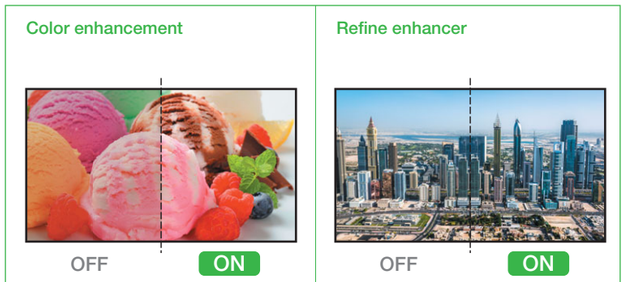
Displays images with enhanced color intensity.

Refine enhancer

Corrects blurry image contours that result from resizing to improve resolution.

Gradation smoother

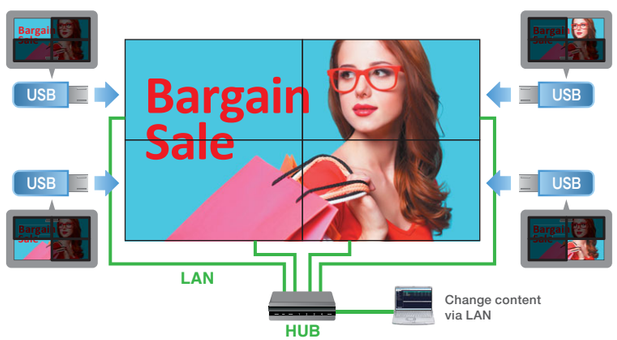
Extracts and eliminates noise components from input video signals for noise-free image reproduction.



Note: Graphic is simulated.

Multi-Screen Imaging Syncing via USB and Changing Content via LAN NEW

The LFV70/60/6 can be quickly adapted for digital signage—just connect USB memory devices to inputs on each display in 2 x 2 multi-screen configuration for automatically synchronized 4K (4 x 1080p) images. No external devices or processors are required. This function also serves as a backup in case the primary video source fails. By using Multi Monitoring & Control Software*1, it's possible to easily replace content stored on USB via LAN*2, perfect in situations where the display is difficult to access.



Note: Connection example for LFV60/6 Series shown.

*1 For more information about Multi Monitoring & Control Software, please visit: http://panasonic.net/prodisplays/download/software/index.html

*2 Replacing content stored on USB memory device via LAN is available on LFV60/6 Series displays only.

High Visibility

LFV70 / LFV60 / LFV6 / LFV5

Bright, Vivid, and Detailed Image Quality

Ultra-Narrow Bezel for Seamless Video Walls

Ultra-narrow bezels on the LFV70/60/6 Series reduce bezel-to-bezel distance to a near-invisible 3.5 mm. In larger video-wall installations, screen borders seem to disappear, resulting in truly spectacular large-format images. The LFV5 feature super-narrow bezels for a bezel-to-bezel distance of just 4.9 mm.

Note: Bezel-to-bezel distance means the combined top and bottom (or left and right) bezel width of adjacent displays in multi-screen configuration. The gap between displays is not included.

* LFV70/60/6 Series features 2.25 mm bezel width for left/top and 1.25 mm width for right/bottom.

Direct-lit LED Backlighting

Direct-lit LED backlighting ensures high contrast performance with deep, rich blacks and bright highlights—ideal for control rooms where high detail definition is necessary. Local Dimming technology controls each individual LED backlight unit to optimize brightness and contrast according to the dynamic requirements of each image.

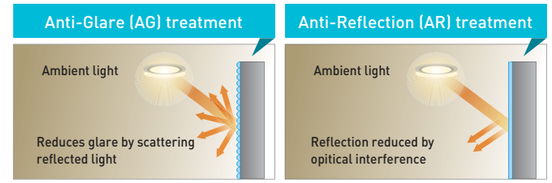
Black is reproduced as dark grey and details are lost in shadows.

Dynamic contrast is improved image-by-image, deepening black areas.

Note: Local Dimming on LFV Series is always set.

Anti-Glare (AG) and Anti-Reflection (AR) Surface Treatments

The AG layer on LFV70/6/5 Series panels scatters reflected light from the sun or illumination to reduce glare and improve visibility. The AG treatment makes both series ideal for use in surveillance stations and for public facilities. The LFV60 Series, meanwhile, features AR surface treatment that reduces reflection by optical interference, and is suitable for retail signage installations.



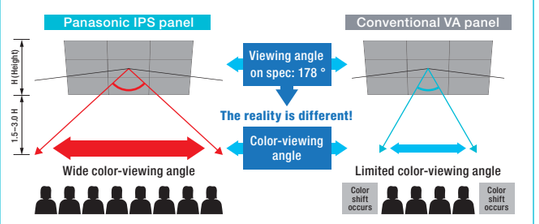
IPS Panel Improves Off-Axis Visibility and Color

In Plane Switching

High-resolution IPS (In-Plane Switching) panel technology is designed for maximum brilliance, detail, and off-axis viewing performance, meaning the screen remains clearly visible even when observed from oblique angles. Furthermore, IPS technology maintains superior color reproduction performance when viewed off-axis in comparison to conventional LCD panels.

Wide color-viewing angle

IPS panel ensures vivid picture quality when viewed from any position.

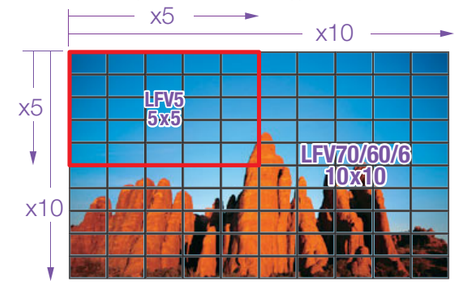


Note: Graphic is simulated. Visibility depends on environment.

Multi-Screen System for High-Impact Images in Large Spaces

The Multi-Display function enlarges images to up to 100 times their original size.* It can increase image size using the same zoom ratio in both vertical and horizontal directions to suit 2 x 2, 3 x 3, 4 x 4, 5 x 5, and 10 x 10 video walls (10 x 10 supported on LFV70/60/6 only), or can apply different ratios to suit alternative screen dimensions. In this way, users can maximize display impact according to the size and shape of the room.

* LFV5 features up to 5 x 5 zoom function. Up to 2 x 2 zoom function available with USB input for LFV60/6. USB input for LFV70 does not support multi-screen function.



Note: A mounting bracket compliant with VESA standards is required for wall mounting. Some degradation occurs when images are enlarged. Be sure to provide adequate ventilation as operating temperatures can vary according to multi-screen configuration and environment.

Reliability & Flexibility

LFV70 / LFV60 / LFV6 / LFV5

Meeting the Demands of Professional Users

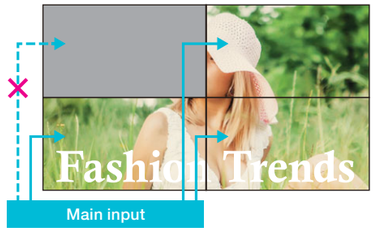
Failover and Failback Safeguards for Mission-Critical Situations

LFV70 LFV60 LFV6

Digital signal inputs comprise one or two DVI-D terminals together with HDMI, DisplayPort, DIGITAL LINK*, and USB terminals. If primary audio-video signals are interrupted, the display immediately switches to an alternative input. This makes the LFV70/60/6 Series ideal for use in control rooms, for staging, and in other applications where uninterrupted playback is essential.

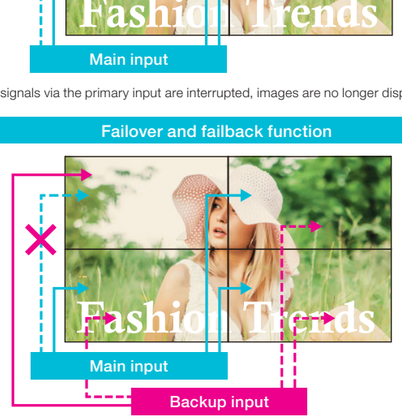
* DIGITAL LINK available on LFV70 Series only.

Conventional



If AV signals via the primary input are interrupted, images are no longer displayed.

Failover and failback function



If the primary AV signal is interrupted, the system automatically switches to a backup input so video display is maintained.

Note: Possible main/backup input signal combinations are limited. For details, please visit the LFV Series product webpage.

Efficient 24/7 Reliability in Landscape or Portrait Mode

The use of durable panel materials and quality electronic components ensures dependable 24-hour operation seven days a week, even in portrait orientation. This makes the LFV Series ideal for installation in public spaces, surveillance centers, and other applications where absolute reliability is critical. Further, the LFV Series is designed for either landscape or portrait orientation without affecting color, brightness, or operational life. This flexibility allows you to use your installation space to its fullest potential.

Note: Display of moving images is recommended when panels are in use for long periods to prevent image retention. Note that image burn-in can be gradually rectified with the periodical display of moving images.

24/7 operation

Portrait

Minimize Downtime and Improve Efficiency

LFV70 LFV60 LFV6

Optional ET-SWA100 series* Early Warning Software monitors displays and projectors connected to an intranet, and informs you when an abnormality is detected or there are symptoms of trouble.

* Part number suffix may differ depending on the license type.

Early Warning Software
ET-SWA100 series

For more information about Early Warning Software, please visit:
http://panasonic.net/prodisplays/products/et-swa100/

DIGITAL LINK Simplifies Installation

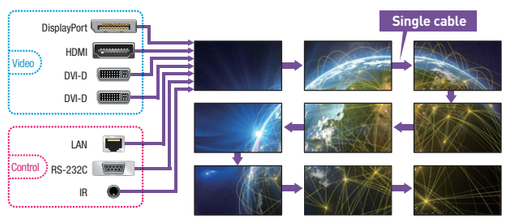
LFV70

The LFV70 Series includes a DIGITAL LINK connection terminal. Based on HDBaseT™ technology, DIGITAL LINK transmits audio, video, and control signals to multiple displays via a single-cable daisy-chain connection. This eliminates the need for video splitters and other routing devices. The LFV60/6/5 models also support daisy-chain DVI connection with separate video and control (serial or IR) connections.

Note: CAT5e or higher STP cable required.

DIGITAL LINK SINGLE CABLE SOLUTION™

DIGITAL LINK reduces cabling cost and complexity



DIGITAL LINK combines AV and control signals
Save time and money with Panasonic's simplified DIGITAL LINK connection.

Simple Operation

LFV70 / LFV60 / LFV6 / LFV5

Installation and Calibration Made Easy

Factory-Matched and Pre-Calibrated Color

Colors are pre-calibrated at the factory prior to shipment in order to minimize color differences between panels intended for multi-screen installation. This makes it possible to create seamless images without any visible color differences from panel to panel*.

Pre Calibration

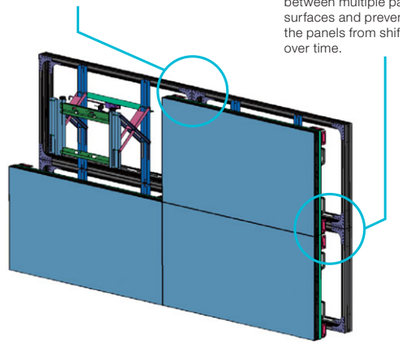
* In some cases, visual adjustment may be necessary.

Dedicated Video-Wall Mounting System

Our optional Installation Mount (TY-VK55LV1/TY-VK47LV1) makes setting up a spectacular video-wall installation comparatively quick and painless. As well as saving time and reducing labor cost, the rigid mount also eliminates potential panel surface alignment inconsistencies with the use of an automatic magnet system. The LFV Series also features optional cover frames for extra protection against impact.

The rigid modular display frames interconnect and eliminate the need for manual bezel alignment.

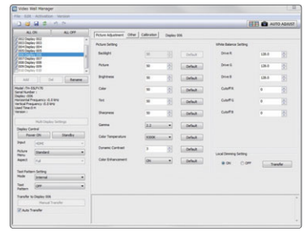
A system of magnets ensures consistency between multiple panel surfaces and prevents the panels from shifting over time.



Inconsistencies in the video wall display can occur when individual panel bezels are not correctly aligned vertically and horizontally, and when panel surfaces are not properly adjusted. Surface alignment control magnets and interlocking mounts ensure precision installation in every axis. The Installation Mount facilitates easy setup and makes individual panels easier to remove for maintenance.

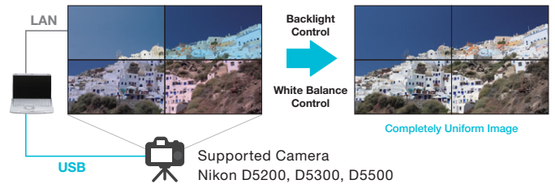
Video Wall Manager Software and Auto Camera Adjustment Kit

Panasonic's free Video Wall Manager software can be used with LFV Series displays. With this software, you can calibrate display color using a color sensor, adjust display settings, and control and manage data via PC. If you upgrade this software with an optional TY-VUK10 Auto Camera Adjustment Kit, you can adjust brightness and color among multiple displays automatically using a compatible camera (Nikon D5200/D5300/D5500)*.



* Available only with normal zoom lens: AF-S DX NIKKOR 18–55 mm f/3.5–5.6G VR, AF-S DX NIKKOR 18–140 mm f/3.5–5.6G ED VR

With LFV70 and TY-VUK10 connected



Video Wall Manager / TY-VUK10 Specification

Basic Software (FREE)	
Name	Video Wall Manager
Download	Free (Login and download from PASS)
Functions	Calibration / adjustment, control of display setting / data control
Target Models	Panasonic Video Wall Display: TH-55LFV70, TH-55LFV60, TH-55LFV6, TH-47LFV5
OS	Windows 7, 8, 8.1
Supported Color Sensor	Konica Minolta: CA-210, CA-310 Datacolor: Spyder4 X-rite: i1Pro2
Connection	RS232C, LAN (LFV70/60/6 only)
Max. Number of Displays	100 units (LFV70/60/6), 25 units (LFV5)

Auto Display Adjustment Upgrade Kit (TY-VUK10)	
Function	Automatic color adjustment using camera
Requirement	Video Wall Manager Software
Activation	License key is required per PC
Supported Camera	Nikon D5200, D5300, D5500 with normal zoom lens: AF-S DX NIKKOR 18–55 mm f/3.5–5.6G VR, AF-S DX NIKKOR 18–140 mm f/3.5–5.6G ED VR
Max. Number of Displays	25 units (5 x 5)

Peripheral Devices

Multi-Window Processor
ET-MWP100G

DIGITAL LINK Switcher
ET-YFB200G*1

Digital Interface Box
ET-YFB100G*1

Optional Accessories

Installation Mount
TY-VK55LV1
(For TH-55LFV70/60/6)
TY-VK47LV1
(For TH-47LFV5)

Surface Alignment Magnets
(Included with Installation Mount)

Cover Frame Kit
TY-CF55VW50
(For TH-55LFV70/60/6)
TY-CF47VW5
(For TH-47LFV5)

Remote Control Kit
TY-RM50VW
(For TH-47LFV5)

Auto Display Adjustment Upgrade Kit
TY-VUK10*3

Early Warning Software
ET-SWA100 series*2

*1 Available on LFV70 Series only. *2 Part number suffix may differ depending on the license type. *3 Supports Version 1.1 or later.